DOCUMENT RESUME

ED 406 553 CE 073 807

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TITLE Bedford County Agribusiness Educational Needs Assessment.
INSTITUTION Allegany Coll., Cumberland, MD.
PUB DATE Apr 97
NOTE 28p.
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Agribusiness; *Agricultural Education; Agricultural Production; Basic Skills; Community Colleges; *Curriculum Development; *Educational Needs; Farm Management; *Farmers; Labor Force Development; *Needs Assessment; Surveys; Two Year Colleges
IDENTIFIERS Allegany College MD

ABSTRACT

Allegany College of Maryland conducted an educational needs assessment survey of farms and related agribusiness firms to provide evaluation data for curriculum planning at the Bedford County Campus. The survey was distributed to over 2,500 establishments and returned by approximately 18 percent of all active farmers. Respondents rated their agricultural workers' skills highest in basic math, reading, and writing and lowest in computer skills and managerial marketing skills. Approximately two-thirds of responding agribusinesses felt a need for postsecondary agriculture coursework, 8 percent disagreed, and 27 percent were uncertain. Agribusinesses preferred curriculum development in agribusiness management areas and curricula that matched present agribusiness sector characteristics such as animal science. A smaller number indicated a need for horticulture and forestry coursework. Respondents showed a preference for short and focused courses and workshop formats over long-term degree and certificate programs. Several respondents noted that programs should be designed to be synchronous with the farming season to ensure adequate turnout. Twenty-eight (16%) respondents indicated they would be interested in hosting a student intern as part of the agricultural cooperative on-the-job training program; 29 (19%) would like to be contacted about their educational needs; and 27 (17%) indicated they needed assistance in marketing their agricultural products. (Appendixes contain the survey instruments.) (YLB)

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Bedford County

Allegany COLLEGE OF MARYLAND

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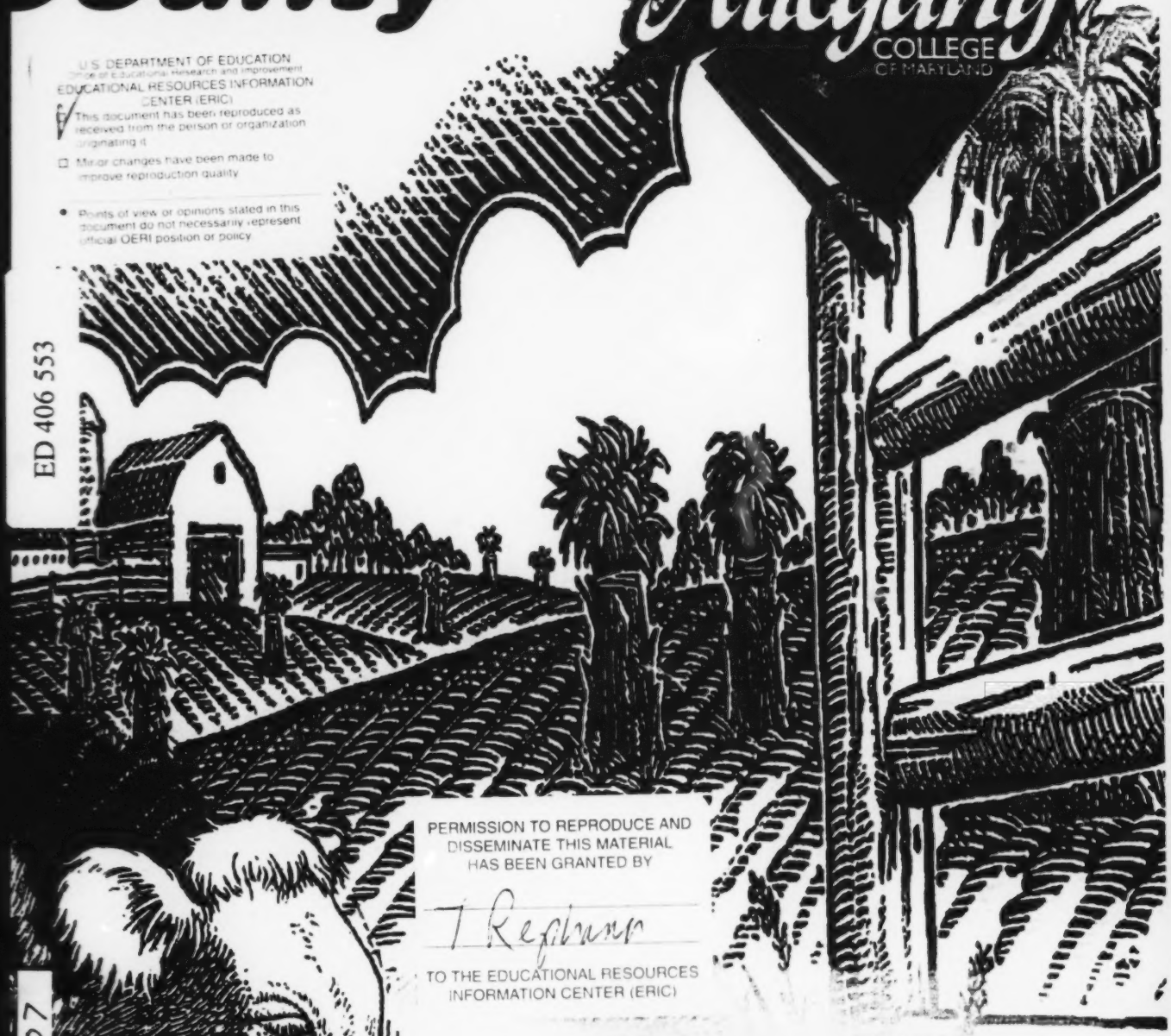

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Agribusiness Educational Needs Assessment

Bedford County Agribusiness Educational Needs Assessment

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Institutional Research Officer
April 1997

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Executive Summary

Allegany College, in cooperation with Bedford County, Pennsylvania, officials and agricultural organizations, conducted an educational needs assessment survey of farms and related agribusiness firms during the winter of 1996. The purpose of this study was to provide evaluation data for planning and curriculum development at the College. The survey was distributed to over 2,500 establishments and returned by approximately eighteen percent of all active farmers. The major findings of this survey are summarized below:

* Farm respondents were representative of all County farmers in terms of principal activity and size. However, they tended to have more employees than the typical Bedford County farm.

* Respondents rated their agricultural workers' skills highest in the area of basic math, reading, and writing; lowest in computer skills and managerial marketing skills. Animal production and crop production skills were ranked in the middle.

* Approximately two-thirds of responding Bedford County Agribusinesses feel that there is a need for post-secondary agriculture coursework in Bedford County. Eight percent disagree. Twenty seven percent are uncertain.

*Agribusinesses prefer curriculum development in agribusiness management areas and curricula that match present agribusiness sector characteristics such as animal science. Many fewer indicated a need for horticulture and forestry coursework, in part because of the preponderance of livestock and dairy farmers in the survey population.

*Respondents showed a preference for short and focused courses and workshop formats over long- term degree and certificate programs. Several respondents noted that programs should be designed to be synchronous with the farming season to ensure adequate turnout.

*The College could expect upwards of 163 farm employees who might be interested in enrolling in some level of agricultural coursework.

*Twenty-eight respondents (16%) indicated that they would be interested in hosting a student intern as part of the agricultural cooperative on-the-job training program, and twenty-nine respondents (19%) would like to be contacted about their educational needs.

*Twenty-seven respondents (17%) indicated that they need assistance in marketing their agricultural products. Products mentioned frequently include dairy products, livestock, fruits and vegetables, and hay.

1.0 Introduction and Research Design

This study was conducted to provide evaluation data for curriculum planning at Allegany College's Bedford County Campus. By questioning County farmers and agribusinesses about employee qualities, workforce educational needs, and curriculum preferences, survey organizers hoped to gain a better understanding of the ways that Allegany College, in conjunction with other educational entities in the County and State, could foster modernization and development in the County's agricultural sector. Assisting in this project were several agencies and associations active in agribusiness, including the Bedford County Commissioners, the Bedford County Office of Economic Development, the Bedford County Extension Service, and the Bedford County Pro Ag Council (a local group of agricultural agencies and farmers who meet quarterly to promote and strengthen local agriculture).

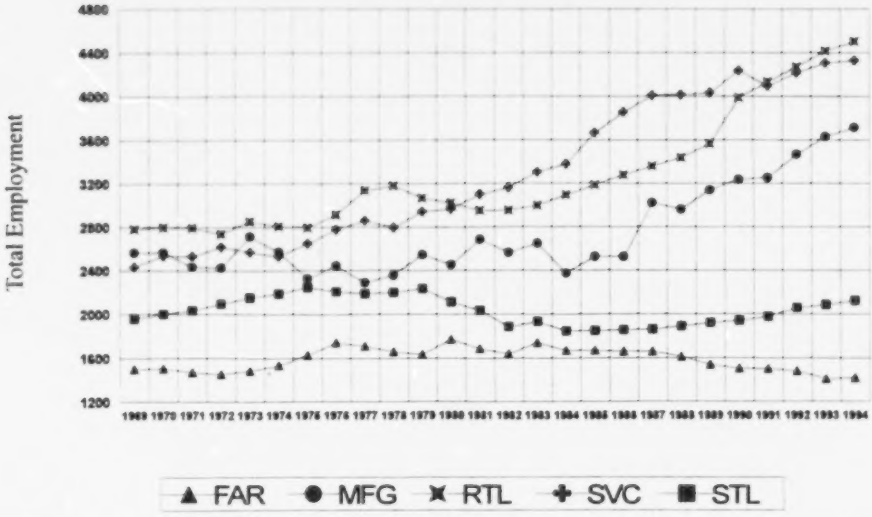
The instrument used in this survey draws on a questionnaire used in a survey of Bedford County employers conducted in the summer of 1995. The previous survey, however, was sent to all active employers in the County. This survey was targeted at farmers and other agribusiness enterprises. The questions asked pertain to agriculture. For instance, Part A of the questionnaire solicits information about the activities, size, and number of employees in the agribusiness enterprise. Part B asks respondents to evaluate employee skills in several agricultural skill areas. Part C gives employers an opportunity to identify programs that they feel are needed in Bedford County. In part D, agribusiness firms are asked to describe their training/education needs and to indicate their willingness to participate in new student intern, marketing, and educational projects. The complete questionnaire (along with cover letters) are included in Appendix A.

In December of 1996, 2,350 farms and agribusinesses in the County were sent a packet which contained a survey instrument, an addressed and postage-paid envelope, and two cover letters. The enterprise addresses were derived from a mailing list maintained by the Bedford County Farm Services Agency. The Bedford County Agricultural Extension Agency distributed an additional 100 surveys to farmers not included on that list. There was no mail or telephone follow-up. Approximately 30 surveys were returned as undeliverable. An additional 80 surveys were returned by respondents who indicated that the chief operator had retired, was deceased, or had no opinion concerning the survey contents. Usable surveys were returned by 232 respondents, of which approximately 154 were farmers. According to the most recent Agricultural Census, there were 938 farms operating in 1992. However, if the rate of decline during the previous 10 years is extrapolated, there are likely to be only 871 farms currently operating. Therefore, the response rate for this important component of the survey group is approximately 154/871=18%. This is less than survey organizers had hoped for, but not unusual given the extent of survey follow-up in this instance.

2.0 Bedford County Agriculture

Farming is one of the largest sectors in the Bedford County Economy. Currently, it comprises approximately 900 farms and employs 1,418 workers (1994). It is exceeded in size by only the retail trade, services, manufacturing, and state and local government sectors (see figure 2.1). Farming employment has been stable in Bedford County but as a proportion of overall employment has declined because of the huge growth in other sectors during the past twenty-five years. Employment in farming expanded briefly during the mid 1970s, reaching a high of 1,743 employees in 1976, and peaking again in the early and mid 1980s at 1,771 and 1,742 respectively. However, employment has declined every year since 1987 to its current low. When the employment of agricultural related firms in agricultural services (14 firms according to the U.S. Census Bureau), kindred food product manufacturing (2 firms), and additional wholesale trade, retail trade, and service enterprises is included, the role of agribusiness in the County economy appears somewhat larger.

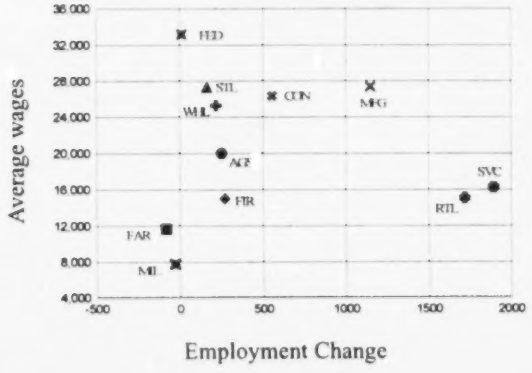
Figure 2.1 Bedford County Employment by Sector



FAR = Farming • MFG = Manufacturing • RTL = Retail Trade • SVC = Services • STL = State and Local Government

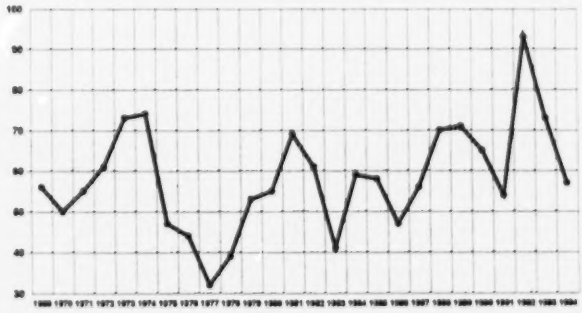
The declining condition of Bedford County agriculture can be attributed to industry trends. These are: (1) increased national and international competition in agriculture, (2) technological advances in agriculture with increasing use being made of production capital and farm economies of scale (and correspondingly less labor) and (3) increasing opportunities in non-agricultural industries. Figure 2.2 illustrates the changing employment opportunities in Bedford County. Growing non-agricultural sectors offer higher average earnings than farming. For instance, the manufacturing sector offers average annual earnings of $27,333 compared to $11,616 in farming. Average earnings in farming have never exceeded the County average earnings during the period 1969-94 [See Figure 2.3]. Therefore, for many young farm-workers, greener pastures lie elsewhere.

Figure 2.2 Earnings and Employment Change Bedford County, by Sector, 1969-94



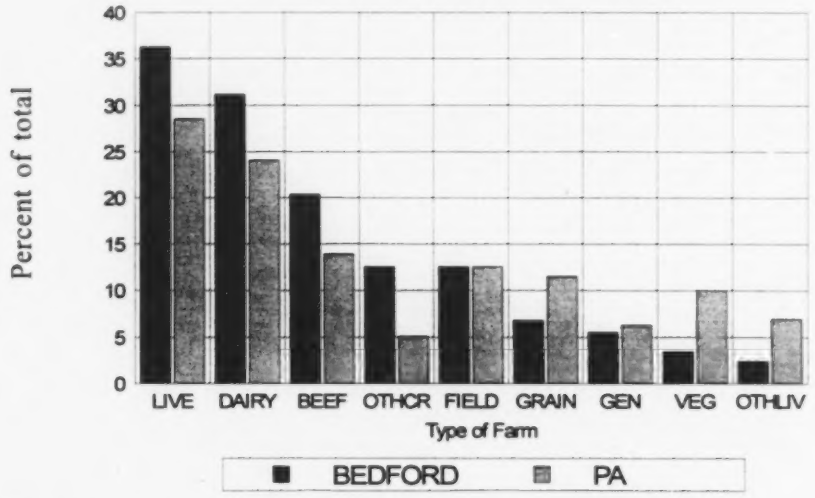
FED = Federal Government
STL = State and Local Government
CON = Construction
MFG = Manufacturing
WHL = Wholesale Trade
SVC = Services
FIR = Finance, Insurance and Real Estate
RTL = Retail Trade
FAR = Farming
MIL = Military

Figure 2.3 Farm earnings vs. County average Bedford County 1969-94



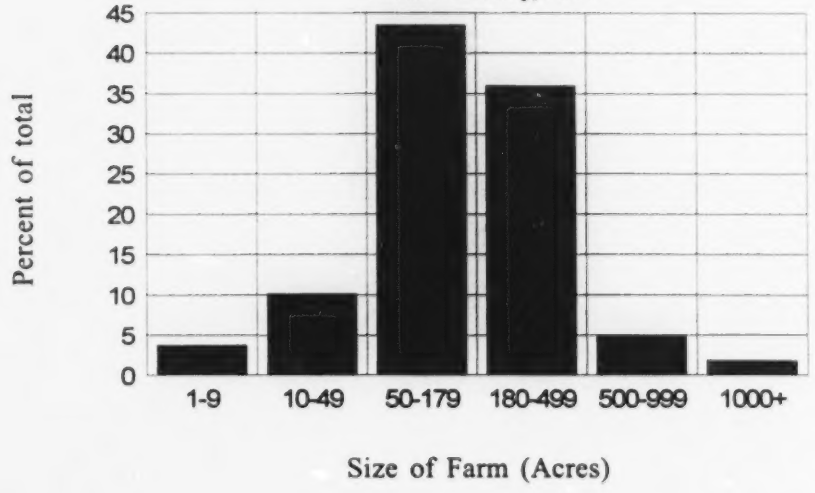
The Bedford County farm sector is not all that different from the rest of the state in some respects. Farming centers primarily around livestock and dairy, a pattern that is only slightly more accentuated than in the state taken as a whole [See figure 2.4]. Most Bedford County farms are of intermediate size, 50-500 acres, like those in the entire state [See figure 2.5], and the total number of farms has been shrinking. The Composition of Bedford County farm expenses has not changed radically during the past 25 years and resembles that of the State. Farmers spend proportionally the same on hired labor expenses as they did twenty-five years earlier (see figure 2.6 and figure 2.7). They spend less on livestock, feed, and petroleum products and more on fertilizer and seed. Most of their expenses fall into the "other" category, which includes repair and operation of machinery, depreciation, interest, rent, and taxes, and other miscellaneous expenses.

Figure 2.4 Farms by Type
Bedford County vs. Pennsylvania, 1992



LIVE = Livestock
DAIRY = Dairy
BEEF = Beef Cattle
OTHER = Other Crops
FIELD = Field Crops
GRAIN = Cash Grains
GEN = General Farms
VEG = Vegetables & Fruits
OTHLIV = Poultry & Animal Specialities

Figure 2.5 Farms by Size
Bedford County, 1992



Bedford County departs from the State in one important respect. Its farms have been shrinking in size whereas the average Pennsylvania farm is growing. During the period 1982-1992, Bedford County went from having 1092 farms to 938 farms—a decline of approximately 14% during the period. However, total farm acreage declined more than 15% during the same period. Consequently, the average Bedford County farm is somewhat smaller than it was 10 years earlier. In the State, however, total acreage has not declined as fast as the number of farms. Therefore, some consolidation of existing farms is occurring at the State level.

Figure 2.6 Farm Production Expenses
Bedford County, 1969

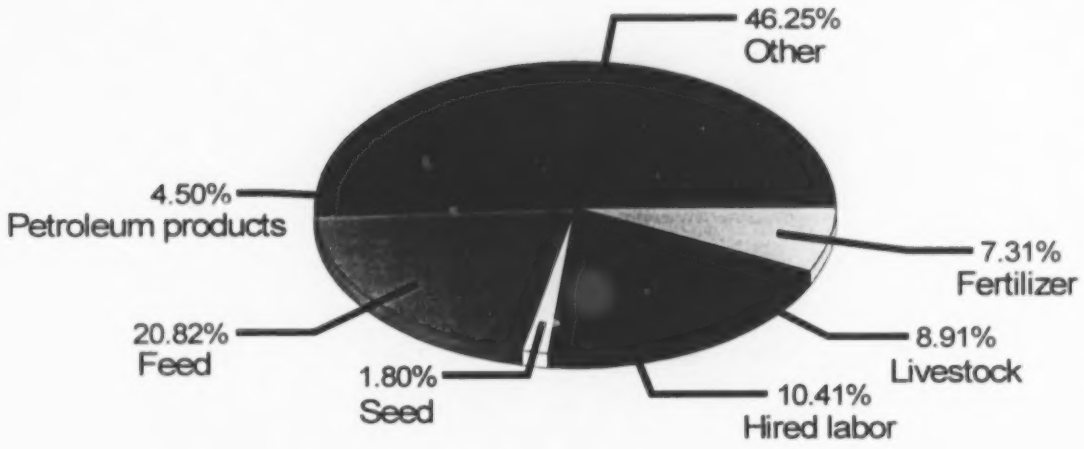
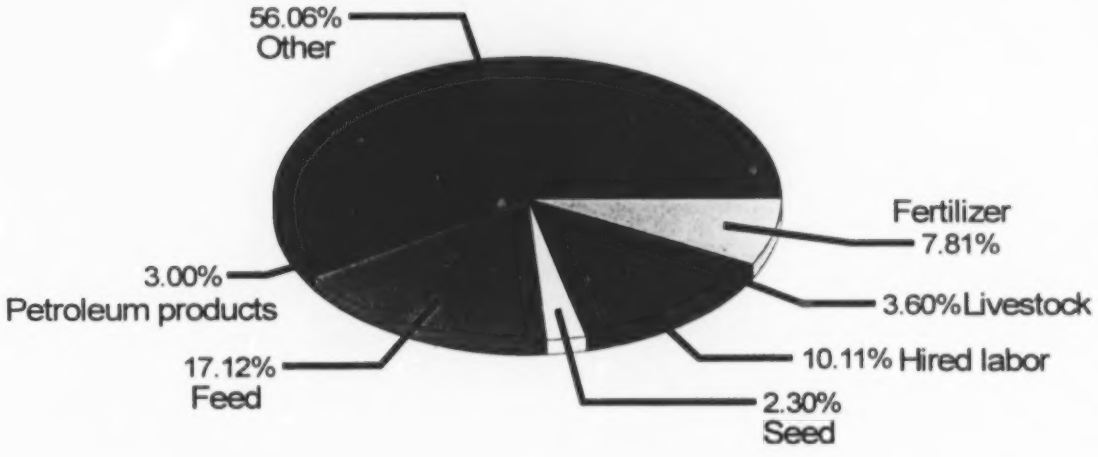


Figure 2.7 Farm Production Expenses
Bedford County, 1994



3.0 Survey Respondent Characteristics

Table 3.1 below shows the characteristics of the 223 survey respondents. Over two-thirds of the respondents were farmers—most of these farmers being involved in the production of livestock, dairy, poultry and other animals. Forestry and agricultural services were the next biggest sectors represented, making up slightly more than seven percent of the total each. Survey respondents listed as "other" included hunting and recreation grounds (5 responses), agricultural education, vacation home, private woods, slaughter/meat processing, hay production, cider press, and aquaculture.

Table 3.1. Characteristics of survey respondents (n=223).

	%
Principal Activity	
Production Crops, Fruits, Vegetables, Grains	21
Production of Livestock, Poultry, Animal specialities, Dairy	47
Agricultural Services	7
Forestry	7
Manufacturing	1
Warehouse, Retail Trade, Wholesale Trade	3
Other/NA	14
Size	
Less than 10 acres	7
10 to 49 acres	16
50 to 179 acres	44
180 to 499 acres	25
500 acres or more	7
Number of Employees	
0-2	70
3-4	18
5-9	9
10+	3

Table 3.2 shows the characteristics of the 154 known farm respondents. Whenever possible, the farm sample is compared to all agricultural establishments as revealed in the U.S. Census Bureau's *1992 Census of Agriculture*. These results show that the respondents are roughly similar to all County farms in terms of principal activity and size. However, the respondent sample is biased toward farms with more than 2 employees. This result suggests that many individual farmers declined to respond to the survey, perhaps, because they did not feel the survey was pertinent to their smaller one-man operations.

Table 3.2. Characteristics of farm respondents compared to 1992 Census of Agriculture (n=154).

	Bedford	Census
Principal Activity		
Production crops, fruits, vegetables, grains	31	28
Production of livestock, poultry, animal specialities, dairy	69	72
Size		
Less than 10 acres	4	4
10 to 49 acres	15	10
50 to 179 acres	45	43
180 to 499 acres	28	36
500 acres or more	8	7
Number of Employees		
0-2	68	93
3-4	22	4
5-9	9	2
10+	1	1

4.0 Workforce Characteristics

Respondents rated their employees highest in basic math, reading and writing skills and maintenance/repair skills (see table 4.1). These results are similar to those of the *Bedford County Employer Needs Assessment* in which few firms rated these as deficiency areas. Skills most pertinent to farm operations, such as crop production skills and animal production skills, were ranked between fair and good. Like the employer survey, computer, managerial/marketing, and computer skills were ranked relatively low. These results suggest that the farm sector rates the qualities of their labor force like other sectors.

Table 4.1 Employee skills, percent of all respondents and mean rating.

	Very Good (5)	Good (4)	Fair (3)	Poor (2)	Very Poor (1)	NA (0)	Mean
Basic math, reading and writing	31	42	22	3	1	3	4.01
Maintenance and repair skills	24	41	24	5	1	4	3.86
Crop production skills	12	44	27	5	0	12	3.73
Animal production skills	15	37	28	4	2	14	3.68
Communication skills	18	39	32	8	1	2	3.66
Managerial, marketing skills	12	34	32	14	2	6	3.43
Computer skills	8	19	20	25	9	19	2.91

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5.0 Education and Training Needs

Two-thirds of the respondents feel that there is a need for post-secondary agriculture coursework in Bedford County (see table 5.1). This sentiment is only slightly higher when farmers are separated from the remainder of the respondents. Respondents showed a preference for short and focused courses and workshop formats over long- term degree and certificate programs (see table 5.2). Moreover, in attached comments, several respondents indicated that programs should be designed to be synchronous with the farming season to ensure adequate turnout. "Other" responses included "safety courses, "Co-op training," "Masters and Ph.D.," "on-the-job training," and "work and study courses together."

According to tables 5.3 and 5.4, agribusinesses favor curriculum development in agricultural management and animal science. The most popular topics were agricultural mechanics, followed by farm, crop, and herbicide/pesticide management. These are general areas applicable to various types of farm operations. Programs in specialized horticultural and forestry were the least popular, no doubt because of the nature of the survey population. Other program responses included: "machinery safety," "safe vehicle operation—feed truck, dump truck, tractor," "futures markets," "nutrient and manure management," "small fruit and vineyards," "aquaculture," and "land management."

According to survey respondents, approximately 163 employees/proprietors might be interested in taking coursework in the format discussed here. This figure is likely to represent an upper range estimate of the size of this market. Non-respondents probably did not participate in this survey because they felt that post-secondary agricultural education/training was not pertinent to their operations. Twenty-eight respondents indicated that they would be interested in hosting student interns (who might originate from such programs) and twenty-nine were interested in being contacted about their educational needs. Twenty-seven respondents were interested in obtaining assistance with marketing their farm products/services. These products, which include livestock, dairy, crops, forestry products, and services, are listed in table 5.6.

Table 5.1 Need for post-secondary agriculture coursework in Bedford County, percentage.

	%
Yes	65
No	8
Don't Know	27

Table 5.2 Types of programs needed. (# of respondents)

Workshops	103
Individual courses	93
Letter of recognition (1 semester)	26
Certificate (1 year)	48
Associate's degree (2 years)	64
Bachelor's degree (4 years)	19

Table 5.3 Agribusiness Curriculum Needs by Area, number of responses.

Business and Management	
Agricultural economics	66
Food and agricultural marketing	45
Farm management	91
Farm records and accounts	82
Farm finance	60
Microcomputer applications in agriculture	67
Systems	
Agricultural mechanics	101
Agricultural building practices and materials	47
Agricultural mechanization	9
Turfgrass and grounds improvement	27
Herbicide and pesticide management	87
Animal Science	
Dairy science	59
Livestock science	64
Poultry science	12
Animal health	85
Animal nutrition	78
Animal breeding and genetics	67
Animal physiology	36
Agronomy	
Basic agronomy	67
Soil science	56
Crop management (field and forage)	90
Horticulture	
Trees and shrubs	38
Landscape design	22
Nursery operations	19
Greenhouse management	27
Fruit production	30
Vegetable production	37
Plant physiology and pathology	26
Forestry	
Land surveying	30
Forest products	43
Wildlife management	42
Tree harvesting	55
Silviculture	14
Miscellaneous/Other	
Career exploration in agriculture	33
Basic education (reading, writing, and math)	29
Agricultural conservation	55
Legal issues in agriculture	55
Sustainable farming	57

Table 5.4 Top 10 Agribusiness course needs, number of responses

Agricultural mechanics	101
Farm management	91
Crop management	90
Herbicide and pesticide management	87
Animal health	85
Farm records and accounts	82
Animal nutrition	78
Microcomputer applications in agriculture	67
Animal breeding and genetics	67
Basic agronomy	67

Table. 5.5 Indication of Interest in student interns, product marketing, and further contact about educational, training, and tuition assistance needs, percentage of total (#).

	Student Intern	Product Marketing	Contact about Education
Yes	16 (28)	17 (27)	19 (29)
No	47 (82)	71 (115)	81 (123)
NA/Don't Know	38 (66)	13 (21)	—

Table 5.6 Products in need of marketing assistance.

<u>Livestock and poultry</u>		<u>Forestry</u>	
Beef cattle	(8 responses)	Tree harvesting	
Pork		Christmas trees	
Bighorn and Doll sheep		Wood lot products	
Chickens and lamb			
Eggs		<u>Services/Other</u>	
		Genetics and reproductive services	
<u>Dairy</u>		Nutrition consulting	
Milk	(5 responses)	Recreational hunting	
Cheese		Manure	
		Herb crafts, fruit products	
<u>Crops</u>		Honey	
Hay	(3 responses)	Livestock handling equipment	
Corn, soybeans	(2 responses)		
Blueberry crop			
Winter squash, melons, tomatoes, peppers			
Greenhouse products			
Apples			

6.0 Comments

In the second part of the questionnaire, respondents described skills that are needed to succeed in agriculture. Some of the skills described are basic, including hard-work, dedication, and willingness to learn. However, many farmers indicated that specific knowledge of animal care, crop production techniques, equipment operation/mechanical repair, and management/marketing methods, is needed. These responses are listed in Appendix B.

When asked how the College could assist agribusinesses with education and training, most agribusinesses indicated that they would like the College to offer some form of coursework. Others wanted the College to keep them informed about coursework opportunities. A handful of farmers replied that College-level education/training is not needed at this time. These responses are listed in Appendix C.

APPENDIX A

Survey Instruments
Cover Letter
Questionnaire

COMMISSIONERS' OFFICE

COUNTY OF BEDFORD
P. O. Box 166
SOUTH JULIANA STREET
BEDFORD, PENNSYLVANIA 15522

Telephone: 814-623-4807
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T.T.Y.: 1-800-654-5984

NORMA C. ICKES
DICK M. RICE
GARY W. EBERSOLE
County Commissioners
Registration Commissioners
County Board of Elections

GORDON E. STROUP
County Solicitor
ANNA M. HINISH
Registrar
JULIE ONSTEAD
Chief Clerk

November 14, 1996

Dear Friend of Agriculture,

Your completion and return of the enclosed Agriculture Education Survey is very, very important to agriculture and agriculture industry in Bedford. Many farmers and agribusinesses have expressed the need for a labor force that has been educated in agribusiness and other agriculturally related courses. The enclosed survey is to determine if there is enough interest in our county for Allegany College's Bedford County Campus to offer courses, in conjunction with Penn State University, in agribusiness and other agriculture related subjects.

The Bedford County Pro Ag Council, the Bedford County Farm Bureau and Allegany College's, Bedford County Campus, have united to make this survey available. Our goal is to help you improve the County's Agriculture economy.

In order to be able to count your response, we need to receive it by December 23, 1996. Each questionnaire will be kept strictly confidential. A self-addressed, postage-paid envelope has been enclosed for your convenience.

We thank you in advance for your prompt reply.

Bedford County Farm Bureau
Norman Sollenberger

Bedford County Pro Ag Committee
Sue Fox, Co-Chair, Richard Strickland, Co-Chair

Bedford County Commissioner
Dick M. Rice

Allegany College Vice President of PA Campuses
Dr. Jim Snider

"An Equal Employment Opportunity Employer"

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Bedford County
Agribusiness Educational Needs Survey

SECTION A. BACKGROUND INFORMATION

A1. What is your principal activity at this location? (check one)

- ☐ Production Crops, Fruits, Vegetables, Grains
- ☐ Production of Livestock, Poultry, Animal Specialities, Dairy
- ☐ Agricultural Services
- ☐ Forestry
- ☐ Manufacturing
- ☐ Warehouse, Retail Trade, Wholesale Trade
- ☐ Other (please describe_____)

A2. What size is your agribusiness? (check one)

- ☐ Less than 10 acres
- ☐ 10 to 49 acres
- ☐ 50 to 179 acres
- ☐ 180 to 499 acres
- ☐ 500 acres or more

A3. How many people, including yourself and other family members, are currently employed in your business?

_____ Full-time (Permanent)
_____ Full-time (Temporary)
_____ Part-time (Permanent)
_____ Part-time (Temporary)
_____ Seasonal
_____ Total

SECTION B. LABOR SKILLS

B1. How would you rate your employees in the following areas?

	Very Good	Good	Fair	Poor	Very Poor	NA
a. Managerial, marketing skills	5	4	3	2	1	0
b. Basic Math, Reading and writing	5	4	3	2	1	0
c. Communication skills	5	4	3	2	1	0
d. Computer skills	5	4	3	2	1	0
e. Maintenance and repair skills	5	4	3	2	1	0
f. Animal production skills	5	4	3	2	1	0
g. Crop production skills	5	4	3	2	1	0
h. Other (please describe_____)						

B2. Please specify any special skills or areas of knowledge that you feel a person should have in order to qualify for a job in your **agribusiness**.

_____

_____

_____

SECTION C. EDUCATION AND TRAINING NEEDS

C1. Do you feel that there is a need for post-secondary agriculture coursework in Bedford County?

☐ Yes ☐ No ☐ Don't Know

C2. If you answered "YES" to C1, what levels of training/education are needed? (check all that apply)

- ☐ Workshops
- ☐ Individual courses
- ☐ Letter of recognition (1 semester of study)
- ☐ Certificate (1 year of study)
- ☐ Associate's degree (2 years of study)
- ☐ Bachelor's degree (4 years of study)
- ☐ Other (please describe _____)

C3. If you answered "YES" to C1, please indicate which courses would be useful to your farm/business in training current and future employees. (Check all that apply)

Business and Management
- ☐ Agricultural economics
- ☐ Food and Agricultural marketing
- ☐ Farm Management
- ☐ Farm records and accounts
- ☐ Farm Finance
- ☐ Microcomputer applications in agriculture

Systems
- ☐ Agricultural mechanics (welding, basic shop work, carpentry, tool care, and plumbing)
- ☐ Agricultural building practices and materials
- ☐ Agricultural mechanization
- ☐ Turfgrass and grounds improvement
- ☐ Herbicide and Pesticide management

Animal Science
- ☐ Dairy science
- ☐ Livestock science
- ☐ Poultry science
- ☐ Animal health
- ☐ Animal nutrition
- ☐ Animal breeding and genetics
- ☐ Animal physiology

Agronomy
- ☐ Basic agronomy
- ☐ Soil science
- ☐ Crop management (field and forage)

Horticulture
- ☐ Trees and shrubs
- ☐ Landscape design
- ☐ Nursery operations
- ☐ Greenhouse management
- ☐ Fruit production
- ☐ Vegetable production
- ☐ Plant physiology and pathology

Forestry
- ☐ Land surveying
- ☐ Forest products
- ☐ Wildlife management
- ☐ Tree harvesting
- ☐ Silviculture

Miscellaneous/Other
- ☐ Career exploration in agriculture
- ☐ Basic education (reading, writing, and math)
- ☐ Agricultural conservation
- ☐ Legal issues/regulations in agriculture
- ☐ Sustainable farming
- ☐ Other (please describe_____)

C4. If you answered "YES" to C1, please indicate how many people in your agribusiness (operator, family, and/or employees included) would be interested in taking coursework._____

SECTION D. MARKETING & ASSISTANCE

D1. Please describe how Allegany College can better help you with your training/education needs.

_____
_____
_____

D2. Is there anything else you'd like to tell us about your education and training needs?

_____
_____
_____

D3. Would you be interested in hosting a student intern as part of the agricultural cooperative on-the-job training program?

☐ Yes ☐ No ☐ NA/Don't Know

D4. Do you have a product that you need assistance in marketing?

☐ Yes ☐ No ☐ NA/Don't Know

If you answered "YES" above what are your products?

_____

D5. Would you like to be contacted for further discussion of your educational, training, and tuition assistance needs?

☐ Yes ☐ No

If yes, contact person:_____
Telephone _____

Thank you for your help.
Please place the completed questionnaire in the enclosed envelope and mail.

Allegany College of Maryland
12401 Willowbrook Road, SE
Cumberland, MD 21502-2596

BEST COPY AVAILABLE

APPENDIX B

Please specify any special skills or areas of knowledge that you feel a person should have in order to qualify for a job in your agribusiness.

Basic

Fixing fence. Hauling Manure.

Good work habits and regular attendance at work.

Dedicated.

Must like outdoor work and not be afraid of physical labor.

Willingness to learn and apply themselves.

Dependability.

Competent. Trustworthy.

Strong back.

Integrity.

Some common street sense. A love of animals and respect for equipment they run.

Aware of what it means to produce a quality product.

Be a self starter.

Because we are a small truck farm, a variety of skills/knowledge would be an asset.

Basic understanding of modern agriculture.

Good verbal and written communication skills and basic math for entry level positions.

To be able to think quickly.

Put in a fair day's work.

Have some knowledge of just what farming is all about. Preferably some on-the-job training.

Hard worker.

Be able to communicate with and work with other humans.

Basic knowledge such as math, reading, etc.

Animal production

They should know how to care for cattle — like keeping them clean, best mixture of feed, caring for calves and knowledge of milking.

Understand dairy cow care.

Knowledge on how to milk cows (care and management).

Animal knowledge.

Need knowledge of animal (large animal) production skills.

Know how to handle and feed animals.

Equine skills. Veterinary skills.

Good animal husbandry skills.

Knowledge on what it takes to care for high producing dairy cattle.

Crop production

Basic crop production.

Pesticide certification.

Knowledge about care of plants and detection of insects and disease.

Must have some education on crops.

Knowledge of handling fresh produce.

Pesticide applicators license.

Grafting. Orchard skills.

Hay and grain production.

Equipment/mechanical

Basic machinery operating skills.

Understand mechanical care.

Machinery skills and knowledge.

Skills in operating machines.

Knowledge on how to operate and fix equipment.

Know how to run machinery.

Equipment operators and maintenance and repair skills.

Mechanical (shop work).

A background in repair and maintenance of machinery. A background in parts sales.

They must be technologically fit to operate our equipment.

Mechanical.

Ability to operate equipment efficiently and follow instructions.

General knowledge of farm equipment.

Management/marketing/business/computers

B1 covers them—managerial skills critical to operate successfully, as several farms are under one management.

Marketing and communication.

Computer skills.

Understanding of basic economics. Ability to plan, schedule and direct.

Hard management training/skills/knowledge. Business management. Leadership/planning/organizing.

Some competence/experience with computers and data entry.

Computer.

Agricultural business management.

Selling skills.

Other

Farm safety.

A high school diploma is all I feel a dairy farmer in this economic state can afford. A good employee manager can find, develop and motivate good employees. As the employee progresses, guide him towards using special classes, seminars, or workshops.

Basic biology. Water chemistry.

Machinery, maintenance, and care. Proper safety techniques. Safe machinery and tractor operation ability, and good PR qualities.

Basic agronomy.

Be familiar with woodlands.

Also, a commercial driver safety training course would be helpful.

APPENDIX C

Please describe how Allegany College can better help you with your training/education needs.

Offer courses

Offer courses, training, seminars, etc.

Offer agriculture courses for County (if interest is there) so students can go on to Pennsylvania State University or other schools that Allegany is associated with.

Opening workshops on fruit and orchard

Offer courses in the area, so that we don't drive for hours to get there and back.

Breeding update training course.

Individual crop and livestock courses.

Equipment maintenance and repair, livestock management ability.

Schedule training programs during less labor intensive times of year (Jan. Feb).

Need courses that fall into schedule of farming practices (1/2 winter, 1/2 spring).

Not interested in longterm classes, but in short workshops in areas of interest.

Computer training. I've never used one.

I would be interested in taking adult night courses in a number of areas.

By offering evening or weekend classes.

Offer evening courses in all aspects of agriculture.

Evening courses - computer, etc.

Scheduling part-time classes; correspondence classes.

Establish some good agricultural programs.

Agricultural related courses close to home would enable young people to receive education in their field and still be able to say on the farm and work.

My wife needs to finish college education to get bachelor's degree.

Provide some workshops on items mentioned.

Workshops on new technology as it relates to agriculture and as it is developed.

Agricultural mechanization courses.

They can help teach some of the basic skills needed, so that employees are more knowledgeable about different dairy aspects.

Training for equipment repairs and equipment operation.

Horticultural courses.

A campus within the rural community with updated information about the rapidly changing advances in agriculture.

Source for new employees. Development of current staff.

Close-to-home programs.

Information

What do I need to know about buying the family farm.

Would keep us updated on new ideas.

Mailings and a local on-line ag service.

Maybe a 1-800 number or mailing to business of courses.

Inform me about course scheduling.

Nothing

I am not sure how it all fits.

None necessary on our operation.

Not applicable. Ag extension office already supplies needed services.

I am involved in production agriculture. After basic education of agriculture, on the job is about the best way to learn.

I seriously question need for any agribusiness courses for this area of marginal part-time farms. Training in other non-farming pursuits seems much more important!

None in agriculture.

Other

I am too old for college, but it would help young men and women.

Financial aid.

We need to learn how to use milk marketing to buy milk futures to make more money.

Is there anything else you'd like to tell us about your education and training needs?

College courses. Workshops. Seminars. On-the-job mistakes.

I would be willing to start at bottom and learn new technology.

Can these courses be offered at the local high school facilities?

We need employees with good machinery operating skills, safety, and maintenance.

Computers.

Keep training costs low.

Any way I can further my education or training to better my farm without hindering the farm. A farm owner/manager must be very versatile in knowledge and abilities.

I have no business in the production of crops or the cattle on this farm.

I do some landscape photography and would like to take some courses in photography.

I feel it is very important to include theory and practical training.

Provide educational opportunities for post-high school graduates in non-farming fields — computer training, business courses, etc.

Update courses.

I am retired, but I think they would be closer on things of interest to whatever business you might bring to better education — computer dairy-beef or agriculture in general.

I read of the small response to this questionnaire. Perhaps, the mailing went to part-time and retired farmers like myself who are not interested in more education. I feel that the active farmers in my area would not take time for anything but an occasional workshop.

I live in New Jersey, and I just bought the farm in Bedford about 1 year ago. I have approximately 40 acres in the soil conservation program. After I retire and move to Bedford in about 2 years, I will be very interested in the training I marked under C3.

It is hard to adjust schedule to fulfill class times and required studying.

Book learning is good, but can you put it to use?

Computer and records.

I have employees with various intelligence, knowledge, and skills. On job training is provided where it fits an employees.

How to be competitive to continue in agriculture business.

Computer.

Need to better train young people to better prepare to take over their parents' dairy farm and prosper over time.

Computer training.

I would be interested in providing input into course development and possibly teaching a course.

When major financial problems arise and what to do about them.

We need secondary agricultural coursework available.

References

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